

From the INTERNATIONAL BUREAU

PCT

NOTIFICATION CONCERNING
TRANSMITTAL OF COPY OF INTERNATIONAL
PRELIMINARY REPORT ON PATENTABILITY
(CHAPTER I OF THE PATENT COOPERATION
TREATY)
(PCT Rule 44bis.1(c))

To:

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ETATS-UNIS D'AMERIQUE

Date of mailing (<i>day/month/year</i>) 12 April 2007 (12.04.2007)		IMPORTANT NOTICE	
Applicant's or agent's file reference QN1129.PCT			
International application No. PCT/US2005/034758	International filing date (<i>day/month/year</i>) 27 September 2005 (27.09.2005)	Priority date (<i>day/month/year</i>) 01 October 2004 (01.10.2004)	
Applicant QLOGIC CORPORATION			

The International Bureau transmits herewith a copy of the international preliminary report on patentability (Chapter I of the Patent Cooperation Treaty)

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PATENT COOPERATION TREATY

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INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY (Chapter I of the Patent Cooperation Treaty)

(PCT Rule 44bis)

Applicant's or agent's file reference QN1129.PCT	FOR FURTHER ACTION	See item 4 below
International application No. PCT/US2005/034758	International filing date (<i>day/month/year</i>) 27 September 2005 (27.09.2005)	Priority date (<i>day/month/year</i>) 01 October 2004 (01.10.2004)
International Patent Classification (8th edition unless older edition indicated) See relevant information in Form PCT/ISA/237		
Applicant OLOGIC CORPORATION		

1. This international preliminary report on patentability (Chapter I) is issued by the International Bureau on behalf of the International Searching Authority under Rule 44 bis.1(a).
2. This REPORT consists of a total of 8 sheets, including this cover sheet.

In the attached sheets, any reference to the written opinion of the International Searching Authority should be read as a reference to the international preliminary report on patentability (Chapter I) instead.

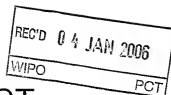
3. This report contains indications relating to the following items:

- | | | |
|-------------------------------------|--------------|---|
| <input checked="" type="checkbox"/> | Box No. I | Basis of the report |
| <input type="checkbox"/> | Box No. II | Priority |
| <input type="checkbox"/> | Box No. III | Non-establishment of opinion with regard to novelty, inventive step and industrial applicability |
| <input type="checkbox"/> | Box No. IV | Lack of unity of invention |
| <input checked="" type="checkbox"/> | Box No. V | Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement |
| <input type="checkbox"/> | Box No. VI | Certain documents cited |
| <input checked="" type="checkbox"/> | Box No. VII | Certain defects in the international application |
| <input checked="" type="checkbox"/> | Box No. VIII | Certain observations on the international application |

4. The International Bureau will communicate this report to designated Offices in accordance with Rules 44bis.3(c) and 93bis.1 but not, except where the applicant makes an express request under Article 23(2), before the expiration of 30 months from the priority date (Rule 44bis .2).

<p style="text-align: center;">The International Bureau of WIPO 34, chemin des Colombettes 1211 Geneva 20, Switzerland</p> <p>Facsimile No. +41 22 338 82 70</p>	<p>Date of issuance of this report 03 April 2007 (03.04.2007)</p> <p>Authorized officer Dorothee Mülhausen</p> <p>e-mail: pt01.pct@wipo.int</p>
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PATENT COOPERATION TREATY



From the
INTERNATIONAL SEARCHING AUTHORITY

PCT

To:

see form PCT/ISA/220

PCT/ISA/220

WRITTEN OPINION OF THE INTERNATIONAL SEARCHING AUTHORITY (PCT Rule 43bis.1)

Date of mailing
(day/month/year) see form PCT/ISA/210 (second sheet)

Applicant's or agent's file reference
see form PCT/ISA/220

FOR FURTHER ACTION
See paragraph 2 below

International application No.
PCT/US2005/034758

International filing date (day/month/year)
27.09.2005

Priority date (day/month/year)
01.10.2004

International Patent Classification (IPC) or both national classification and IPC
H04L12/56

Applicant
QLOGIC CORPORATION

1. This opinion contains indications relating to the following items:

- ☒ Box No. I Basis of the opinion
- ☐ Box No. II Priority
- ☐ Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- ☐ Box No. IV Lack of unity of invention
- ☒ Box No. V Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- ☐ Box No. VI Certain documents cited
- ☒ Box No. VII Certain defects in the international application
- ☒ Box No. VIII Certain observations on the international application

2. FURTHER ACTION

If a demand for international preliminary examination is made, this opinion will usually be considered to be a written opinion of the International Preliminary Examining Authority ("IPEA"). However, this does not apply where the applicant chooses an Authority other than this one to be the IPEA and the chosen IPEA has notified the International Bureau under Rule 66.1b(s)(b) that written opinions of this International Searching Authority will not be so considered.

If this opinion is, as provided above, considered to be a written opinion of the IPEA, the applicant is invited to submit to the IPEA a written reply together, where appropriate, with amendments, before the expiration of three months from the date of mailing of Form PCT/ISA/220 or before the expiration of 22 months from the priority date, whichever expires later.

For further options, see Form PCT/ISA/220.

3. For further details, see notes to Form PCT/ISA/220.

Name and mailing address of the ISA:



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**WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY**

International application No.
PCT/US2005/034758

Box No. I Basis of the opinion

1. With regard to the **language**, this opinion has been established on the basis of the international application in the language in which it was filed, unless otherwise indicated under this item.
 - ☐ This opinion has been established on the basis of a translation from the original language into the following language , which is the language of a translation furnished for the purposes of international search (under Rules 12.3 and 23.1(b)).
2. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application and necessary to the claimed invention, this opinion has been established on the basis of:
 - a. type of material:
 - ☐ a sequence listing
 - ☐ table(s) related to the sequence listing
 - b. format of material:
 - ☐ in written format
 - ☐ in computer readable form
 - c. time of filing/furnishing:
 - ☐ contained in the international application as filed.
 - ☐ filed together with the international application in computer readable form.
 - ☐ furnished subsequently to this Authority for the purposes of search.
3. ☐ In addition, in the case that more than one version or copy of a sequence listing and/or table relating thereto has been filed or furnished, the required statements that the information in the subsequent or additional copies is identical to that in the application as filed or does not go beyond the application as filed, as appropriate, were furnished.
4. Additional comments:

**WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY**

International application No.
PCT/US2005/034758

Box No. V Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement

Novelty (N)	Yes: Claims	2-22
	No: Claims	1
Inventive step (IS)	Yes: Claims	
	No: Claims	1-22
Industrial applicability (IA)	Yes: Claims	1-22
	No: Claims	

2. Citations and explanations

see separate sheet

Box No. VII Certain defects in the international application

The following defects in the form or contents of the international application have been noted:

see separate sheet

Box No. VIII Certain observations on the international application

The following observations on the clarity of the claims, description, and drawings or on the question whether the claims are fully supported by the description, are made:

see separate sheet

Re Item V

Reasoned statement with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

- 1 Reference is made to the following documents; the numbering will be adhered to in the rest of the procedure:

- D1: CURT RIDGEWAY: "20GFC-40GFC using 4-lane XAUI's" T11/03-069V0.PDF, [Online] 2 March 2002 (2002-03-02), pages 1-19, XP002358728 LSI LOGIC Retrieved from the Internet: URL:http://www.t11.org/ftp/t11/pub/fc/10gf_c/03-069v0.pdf > [retrieved on 2005-12-12]
D2: CURTIS A. RIDGEWAY: "Design considerations for 10-Gbit Fibre Channel" COMSDSIGN, [Online] 14 April 2003 (2003-04-14), pages 1-3, XP002358727 Retrieved from the Internet: URL:<http://www.commsdesign.com/showArticle.jhtml?articleID=16500902> > [retrieved on 2005-12-12]
D3: US-A-6 144 668 (BASS ET AL) 7 November 2000 (2000-11-07)

- 2 The lack of clarity mentioned below notwithstanding, the subject-matter of claim 1 is not new in the sense of Article 33(2) PCT, and therefore the criteria of Article 33(1) PCT are not met.

- 2.1 Documents D1 and D2 form a single publication as the documents are linked by reference in D2 last paragraph to D2: 03-069v0.pdf at www.t11.com.

- 2.2 Document D1 discloses (the references in parentheses applying to this document):

A fibre channel switch element (D1, p. 9: "*4-Lane XGXS Physical Slice*"), comprising: a rate select module (D1, p. 9: "*LTSSM x1 to x16*") that allows a port (D1, p. 9: "*16-Lane PHY Lane Width Slice*") in the fibre channel switch element (D1, p. 9: "*4-Lane XGXS Physical Slice*") to operate at a rate equal to or higher than 10 gigabits per second (D1, p. 6: "*Wider for greater bandwidth: x8, x12, x16*"; D1, p. 3: "*Fibre channel 10,200 MBps*").

- 2.3 Furthermore it should be noted that even if the applicant intended to argue novelty of claim 1 based on a slightly different interpretation of the features of this claim and those disclosed in D1, its subject matter would not involve an inventive step (Article 33(3) PCT), in view of the disclosure of D1 and D2 especially as these documents disclose the same object and the same type of solution as claimed in claim 1.
- 2.4 The subject-matter of independent claim 12 corresponds in terms of apparatus features to that of claim 1 with the additional feature of describing a fibre channel network, which is disclosed in D2, p. 1, par. 4 *"multilane connection will be primarily used between fabric switches and later between large disk subsystems"*. Hence, the subject-matter of claim 12 is not inventive (Article 33(3) PCT).
- 2.5 The additional features of dependent claims 2-11,13-22 relate to minor details and are either directly derivable from the above mentioned prior art documents (claims 2,3,13,14: D2, p.2, par 11: *"a dynamic alignment function can be added above the XGMII interface to present a single 20 GFC or 40 GFC data stream"*; claims 4,15: increasing rate of each lane is proposed in D1, p.3: *"Enhanced FC"*; D2: *"the spec using 4.25 Gbit/s data rates is expected to be finalized..."*; claims 5,16: D1, p. 5, *"allow for future HW speed negotiation"*; claims 6,17: D3, abstract: *"cut-through"*; claims 7,18: D1, p. 6 *"Can use multiple 4-lane slices"*; claims 8,9,19,20: D1, p. 1, par. 8: *"make four serial streams running at 3.1875 GHz look like one stream at 12.75 GHz"*; claims 10,21: D2, p. 1, par. 8: *"We define this 10 Gbit Attachment Unit interface (XAUI) as four lanes of differential encoded serial data over copper"*; claims 11,22: D1, p. 3: *"fibre channel"*) or represent simple modifications of the prior art cited in the search report and thus lie within the normal design competence of a skilled person. These claims therefore, either alone or in combination appear to add nothing of inventive significance to the respective independent claims and thus do not satisfy the criterion set forth in Article 33(3) PCT.

Re Item VII

Certain defects in the international application

- 3.1 The features of the claims are not provided with reference signs placed in parentheses (Rule 6.2(b) PCT).
- 3.2 The independent claim should have a preamble that correctly reflects the nearest prior art, presumably that represented by the above noted D1 (Rule 6.3.(b),(i),(ii) PCT).
- 3.3 If any amended independent claims are filed, the opening part of the description should be brought into agreement with the wording thereof.
- 3.4 In order to meet the requirements of Rule 5.1.(a),(ii) PCT, the relevant prior art, i.e. documents D1 and D2 noted above, should be acknowledged by reference and briefly discussed in the introductory part of the description.
- 3.5 The attention of the applicant is finally drawn to the fact that the application may not be amended in such a way that it contains subject-matter which extends beyond the content of the application as filed (Article 34(2)(b) PCT). Amendments should be filed by way of replacement pages in the manner stipulated by Rule 66.8(a) PCT.
Remark:
If during the procedure any amendments concerning the claims are made e.g. introducing subject-matter into the present claims or filing new claims, then it is requested that the applicant in his letter of reply should clearly indicate the parts of the originally filed application serving as a basis for the filed amendments and indicate where these parts can be found. This is necessary to ensure beyond doubt that no subject-matter has been added which extends beyond the content of the application as originally filed, Article 34(2)(b) PCT, rendering all amendments made invalid.

Re Item VIII

Certain observations on the international application

- 4 The application does not meet the requirements of Article 6 PCT, because claims 1-22 are not clear.
- 4.1 Although claims 1 and 12 have been drafted as separate independent claims, they appear to relate effectively to the same subject-matter and to differ from each other

only with regard to the definition of the subject-matter for which protection is sought. The aforementioned claims therefore lack conciseness and as such do not meet the requirements of Article 6 PCT.

- 4.2 The term "rate equal to and / or higher" used in claims 1,12 is unclear because the rate can not be equal and higher at the same time. Thereby rendering the definition of the subject-matter of said claims unclear (Article 6 PCT).
- 4.3 Some of the features in the apparatus claims 1-22 relate to a method of using the apparatus (that allows, may operate, can negotiate, is used, are used, operates, using, are used) rather than clearly defining the apparatus in terms of its technical features. The intended limitations are therefore not clear from this claim, contrary to the requirements of Article 6 PCT.
- 4.4 Claim 4 does not meet the requirements of Article 6 PCT in that the matter for which protection is sought is not defined. The claim attempts to define the subject-matter in terms of the result to be achieved, because the necessary means of the device for operation at a rate greater than 40 G is not mentioned. In this instance, it appears possible to define the subject-matter in more concrete terms, viz. in terms of how the effect is to be achieved.
- 4.5 The terms "that allows" and "may operate" used in claims 1-4,12-15 are vague and unclear and leave the reader in doubt as to the meaning of the technical features to which they refer, thereby rendering the definition of the subject-matter of said claims unclear (Article 6 PCT).